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Minutes of Cellular Neural Network and Array Computing Technical Committee Meeting at ECCTD 2001

29 August 2001 12:10-13:40
Room H1, Helsinki University of Technology
ECCTD 2001, Helsinki

Attendance

P. Arena, D. Balya, M. Gilli, R.-W. Liu, M. Laiho, M. Ogorzalek, A. Paasio, V. Porra, C. Rekeczky, T. Roska, G. Setti, B. Shi, J. Suykens, P. Szolgay, V. Tavsanoğlu, R. Tetzlaff, J. Vandewalle, A. Zarandy (18 total)

Welcome

V. Porra welcomed the members of the technical committee on behalf of the Helsinki University of Technology. He remarked that this year's representation of CNN and related technical areas at ECCTD was very strong, with many sessions on CNNs and nonlinear dynamics. Past chair T. Roska thanked V. Porra and colleagues for their work in organizing the conference, which seems to be one of the best attended ECCTD conferences. T. Roska also thanked R. W. Liu for his assistance in the founding of the technical committee. R.-W. Liu responded that the cellular neural networks and array computing is an important area within the Circuits and Systems Society.

T. Roska reported that unfortunately Luigi Fortuna, the current chair, was unable to attend ECCTD and had asked him to chair the meeting in his place.

Special Sessions at ISCAS 2002 (T. Roska)

According to the bylaws, as past chair T. Roska is responsible for coordinating CNNAC Technical Committee-sponsored special sessions and workshops at ISCAS. He proposed three special sessions: "Bionics and CNN Technology" (organized by R. Tetzlaff and P. Arena), "Advanced Analogic CNN Algorithms" (organized by Cs. Rekeczky and M. Gilli), and "CNN Based Array Microprocessors and Unconventional Devices" (organized by S. Espejo and S. Baglio). The last session is intended to include both conventional CMOS hardware and others implementations such as MEMS and Polymers. All members were encouraged to send proposals for innovative papers in the sessions to the respective organizers and to suggest potential authors or topics. Official proposals should be submitted to the ISCAS organizers within about ~10 days. (**Action: R. Tetzlaff, P. Arena, Cs. Rekeczky, M. Gilli, S. Espejo and S. Baglio**)

As current chair, L. Fortuna will be in charge of coordinating the CNNAC technical track at ISCAS.

CNNA 2002 (R. Tetzlaff)

R. Tetzlaff invited all members to attend the International Workshop on Cellular Neural Networks and Their Applications (CNNA 2002) which will be held at the Johann Wolfgang Goethe University in Frankfurt between July 22-24, 2002. This year's theme will be "Nonlinear Information Processing and Intelligent Sensors." He asked the committee members for their help in the paper review process, which will start after Jan. 21, 2002. Special events will include and exhibitions and with live demos from academia and industry,

a young researchers contest, and a special sessions on sensors. TR emphasized that the exhibition will be first time that companies working in CNNS will have chance to demonstrate their new and upcoming products at a CNNA conference.

R. Tetzlaff will distribute a PDF copy of the call for papers to all members, who are asked to distribute it to their colleagues and students. He also encouraged members to contact him with any suggestions regarding CNNA. (**Action: R. Tetzlaff**)

Young Researcher's Contest (C. Rekeczky)

Cs. Rekeczky reported that the Young Researcher's Contest would be organized similar to that held in 2000, with participants invited to develop analogic algorithms for a specific task. This year, the task will likely involve target tracking through a video sequence, with one half of the video sequence being distributed as a training set, and the other half used for testing and evaluation. R.-W. Liu asked for clarification regarding the age of a "Young Researcher." Cs. Rekeczky replied that the researchers aged less than 35 were eligible.

R.-W. Liu informed the committee that he was not aware of the last contest, and suggested that more efforts in publicizing the contest were warranted. It was suggested that the organizers, contact B. Wehner for help in publicizing the contest.

J. Suykens reported his experience in organizing a similar contest on time series prediction a few years ago. He suggested that the organizers consider opening the contest to all interested participants. After some discussion, the committee agreed that the contest would be open to all, but that prizes would only be awarded to the top entries submitted by young researchers.

T. Roska asked all members to advertise the Young Researchers Contest and to encourage their own students to participate.

Technical Committee Website (R. Tetzlaff)

R. Tetzlaff reported that the website needed to be updated. Discussions held in Budapest between T. Roska, R. Tetzlaff, Cs. Rekeczky and D. Balya resulted in the following structure.

0. Upcoming events
1. CNN Paradigm
 - a. Part I: As it is
 - b. Part II: The CNUM
2. CNN Dynamics and Demos
3. Visual Microprocessors and other CNN chips
4. Development systems (including CNN simulators, CNN analogic simulators, hardware/software development systems)
5. Research groups
6. Education
7. Bibliography

R. Tetzlaff reported that the most work was required for the "Education" page, which is currently empty. This page is intended to contain links to UG and PG courses and to textbooks. J. Vandewalle asked whether the Education section should link to materials in English only. T. Roska suggested that the page contain short description of the materials available at each link in English, but that information in other languages could be linked as well.

T. Roska urged members to send more contents to R. Tetzlaff for inclusion in the website. In particular, all members should send the URL of their homepage for updating as soon as possible (e.g. upon their return from the conference.) (**Action: All members**)

AOB

1. The following new members were proposed. V. Mladanov and S. Arik (by V. Tavsanoğlu), G. Palumbo (by L. Fortuna as communicated by T. Roska). A. Paasio (by B. Shi). J. Suykens (by Cs. Rekeczky). After a short discussion, all proposed members were endorsed by the current members present.

2. V. Tavsanoğlu brought to members attention that three current members of CNNAC technical committee are on the ballot for the Circuits and Systems Society Board of Governors: L. Fortuna, M. Ogorzalek and V. Tavsanoğlu. All members were encouraged to participate in the election. Ballots must be cast by 24 September 2001.

3. V. Tavsanoğlu enquired regarding the location of CNNA in 2004. T. Roska reported that V. Porra of Helsinki had offered to organize this CNNA. However, it would be understandable given the amount of work already done in organizing ECCTD this year if V. Porra preferred to organize the workshop at a later date. T. Roska reported that it had been decided recently that the International Joint Conference on Neural Networks (IJCNN), the IEEE Conference of Fuzzy Systems and a conference on Bionics would be held jointly in Budapest in 2004. Therefore, another possibility would be to organize the workshop in conjunction with those conferences. V. Tavsanoğlu reported that the Isik University in Istanbul, Turkey had also indicated their willingness to organize the 2004. Further discussions and a decision will be made in ISCAS 2002 in Phoenix.

4. Cs. Rekeczky informed the committee that the organizing committee of the IJCNN had agreed to hold a special session on CNN technology to be organized by Cs. Rekeczky and T. Roska. Members were encouraged to send suggestions for papers to be included in this session to Cs. Rekeczky.

5. The following news item regarding the International Conference on Neural Information Processing to be held in Shanghai was submitted by Harold Szu via email after the meeting. All members of CNNACT were invited to attend the International Conference of Neural Information Processing (ICONIP-2001) on a special mini-symposium: "Architectures and Applications," which will be held at Ocean Resort Hotel in Shanghai organized by Fudan University between November 15-19, 2001, as a part of ICONIP. ICONIP is an annual conference sponsored by APNNA in Asian Pacific area for the last seven years and cooperated by IEEE, and INNS.

The theme of this symposium will emphasize among others the "MEMS Standardization and MEMS foundry establishment." James Buss and Harold Szu of ONR will address the theme illustrated with a smart sensor web, OSD program, designed for urban surveillance on all city traffic lights via power line communication using cellular neural network to minimize the false alarm and bandwidth rates for Chem-Bio surveillance sensor integration. Bertram Shi will co-Chair the symposium of interesting talks contributed from Tamas Roska, Antonio Luigi Perrone, Gianfranco Basti, Nick Karagelen, Charles Hsu, Takashi Omori, Jeffery Willey, and Harold Szu. We emphasize the importance of the academia, industry and government collaboration of CNN of which a Web summary will be provided to CNNACT at the conclusion of the symposium. **(Action: Harold Szu)**

Their being no further business, the meeting adjourned at 13:30.